United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

ENVIRONMENTAL ASSESSMENT

EA# NM-060-01-**083**

WELL NAME & NO.: Dorothy "VO" Federal #2
Serial #: NM-17208

Section 14, T. 8 S., R. 26 E., NMPM,
1,500' FNL & 1,300' FWL
Chaves County, New Mexico

OPERATOR: Yates Petroleum Corporation

ACTION: Application for Permit to Drill

SURFACE/MINERAL ESTATE: Federal Minerals/Private Surface

I. Introduction

A. Need for the Proposed Action:

Yates Petroleum Corporation proposes to drill and complete a natural gas well at the above described location. The proposed action is needed to develop the mineral lease.

B. Conformance with Land Use Plan:

Oil and gas leasing and development is addressed in the Roswell Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement, January 1997, and is in conformance with the Roswell Approved Resource Management Plan and Record of Decision, October 1997.

C. Relationship to Statutes, Regulations, or other Plans:

The proposed action does not conflict with any known State or local planning, ordinance or zoning.

II. Proposed Action and Alternatives

A. Proposed Action

Yates Petroleum Corporation submitted Notices of Staking on 5/26, 2000, to drill the Dorothy "VO" Federal #2 gas well. The Application for Permit to Drill was submitted on January 30, 2001.

The proposed action would include:

1. The construction of approximately **3,168** feet of new access road from Highway 70 to the **southwest** corner of the proposed well pad. All other existing access roads would be maintained in as good or better condition than were existing at the commencement of operations. A cattleguard and a gate would be constructed and installed at the fence crossing in the SW¼SW¼ of Sec. 14 - T. 8 S. -R. 26 E..

2. The construction of the proposed well pad would be **325** feet long by **185** feet wide. The construction of the reserve pit would be about **175** feet by **150** feet and dug 4 feet below ground level. The reserve pit would be located on the **north** side of the drill pad. Standard oilfield construction equipment consisting of; track-type tractors, motor graders, dump trucks, and water trucks would be used to construct the access road and well pad. A rotary drilling rig would be used to drill the well. Associated production facilities (e.g., separator, storage tanks, etc.) would be installed during the production phase of this well. Topsoil would be stockpiled for future use over the disturbed areas.

3. Surfacing material (caliche/gravel) needed for the construction of the access road and well pad could be obtained by the operator from a federal pit in the SW¼SW¼ of Section 15 - T. 8 S. - R. 26 E., Chaves County, New Mexico.

B. Alternatives:

1. Relocate the Proposed Action

The well location is determined on the basis of subsurface geologic information and by spacing regulations imposed by the New Mexico Oil Conservation District II. No other alternative location would have significantly fewer impacts than, or have a clear advantage over, the proposed location. Therefore, the alternative of changing the location involved in this action is not analyzed further in this EA.

2. No Action

Under this alternative, the application would be rejected. None of the environmental impacts associated with the proposed action or alternate location would occur. Additionally, economic benefits of the proposed action would not be realized, and the existing environment, including the developments in place, would remain unchanged.

III. Description of the Affected Environment

A. General Setting:

The proposed access road and well pad are located on federal minerals and private surface, about 18 miles NE of Roswell, NM. This area is on high terraces in the south-central part of the soil survey area. The mean annual precipitation is 11 to 12 inches. Historical and present use of the subject lands have been limited to livestock grazing and energy development.

B. Rights of Record:

An inspection of the Master Title Plats and other Bureau records revealed the following title information pertaining to valid existing prior rights on the subject lands:

- Oil and gas leases: **NM-17208** - covers lease actions.
- No federally administered rights-of-way would be affected in the project area.
- No mining claims are recorded within Sec. 14, T. 8 S., R. 26 E., NMPM.

C. Affected Resources:

The following critical resources have been evaluated and are either not present or are not affected by the proposed action or the alternatives in this EA:

Areas of Critical Environmental Concern (ACEC's)
Cultural Resources (01-R-**026**-A)
Farmlands, Prime/Unique
Floodplains
Native American Religious Concerns
Threatened or Endangered Species (Plants & Animals)
Wastes, Hazardous/Solid
Wetlands and Riparian Zones
Wild & Scenic Rivers
Wilderness

1. Air Quality:

The area of the proposed action is considered a Class II air quality area. A Class II area allows a moderate amount air quality degradation. The primary sources of air pollution are dust from blowing wind on disturbed or exposed soils and exhaust emissions from motorized equipment.

2. Soils:

The proposed action would occur in an area of calacareous alluvial and eolian material in well drained soils on side slopes, depressional areas, and low ridges, referred to as Sotim-Simona association fine sandy loam as described in the Soil Survey of Chaves County, New Mexico, Northern Part (Pages 65 & 66, map #22). The Sotim soil is deep and well drained. Permeability of the Sotim soils is moderately slow, runoff is medium, and the hazard of water erosion is moderate. The hazard of soil blowing is high. The Simona soil is shallow and well drained. Permeability of the Simona soils is moderately rapid, runoff is rapid, and the hazard of water erosion is high. The hazard of soil blowing is high. The soils are found on 0 to5 percent slopes.

3. Vegetation:

The native vegetation in the area is composed of mainly tall and mid grasses, shrubs, and forbs, such as, blue grama, sand dropseed, small soapweed, and common javalinabush.

4. Ground Water Quality:

Fresh water sources for livestock and domestic use are found in the Quaternary and the Artesia

Group. Known depths to ground water range from 7 feet and 250 feet below surface. Fresh water for livestock use has been encountered in excess of 800 feet.

5. Wildlife:

Wildlife species utilizing this area for habitat include mule deer, pronghorn antelope, coyote, fox, rabbits, kangaroo rats, pocket gophers, prairie rattlesnakes, as well as a variety of songbirds, dove, quail, and raptors.

No known special status species (plant/animal) or critical habitat are present within the confines of the project area.

6. Range: The well is located on a BLM grazing allotment # 5036; Cooper, Carl E., P.O. Box 22, Roswell, N.M. 88201

Non-Native and Invasive Weed Species (Noxious Weeds): There are no known populations of noxious or invasive weed species at the proposed site.

7. VRM/Recreation: The proposed action is located in a designated VRM Class IV area. Recreation in the vicinity includes seasonal hunting.

8. Cave/Karst: No surface cave/karst features were observed in the immediate vicinity of the proposed actions.

9. Minority or Low-income Populations or Communities: The proposed project would not affect the minority or low-income populations or communities.

IV. ENVIRONMENTAL IMPACTS

A. Proposed Action Impacts:

The surface disturbance involved in the construction of the access road, well pad, and reserve pit would total about 4.2 acres of federal minerals/private surface.

1. Air Quality:

Air quality would temporary be impacted with pollution from exhaust emissions, chemical odors, and dust that would be caused by the motorized equipment used to construct the access road, well pad, and by the drilling rig that will be used to drill the well. Dust dissemination would discontinue upon completion of the construction phase of the road and well pad. Air pollution from the motorized equipment would discontinue at the completion of the drilling phase of the operations. The winds that frequent the southeastern part of New Mexico generally disperse the odors and emissions. The impacts to air quality would be greatly reduced as the construction and drilling phases are completed.

2. Soils:

The construction of the access road and well pad would physically disturb about 4.2 acres of

topsoil material and vegetation. Construction of the reserve pit would affect deeper soil horizons because of the proposed 4-foot depth of the pit. The exposed soils would be susceptible to wind blowing and water erosion. Surfacing the exposed areas would minimize the impacts to the soil. The impact would be remedied upon reclamation when the stockpiled soil would be spread over the disturbed areas to establish a seed bed.

The access road would be impacted when heavy precipitation causes water erosion damage. When water saturated segment(s) on the access road become impassable, vehicles may still be driven over the road. Consequently, deep tire ruts would develop. Where impassable segments are created from deep rutting, unauthorized drive-arounds may occur outside the designated access road. This creates additional soil impacts associated with lease development. Road constructions requirements would alleviate potential impacts to the access road from water erosion damage.

3. Vegetation:

Construction activities for the access road and well pad would remove about 4.2 acres of native vegetation from the site. Vegetation recovery on the site would depend on the life of the well. If drilled as a dry hole and plugged, reclamation of the site would immediately follow. Vegetation impacts would be short-term with the site re-vegetating in a few years, if the surfacing material (caliche) is hauled off or ripped and re-seeded. If it is a producing well, reclamation would not commence until the well is a depleted producer and plugged and abandoned. Native vegetation would encroach on the site over time with only high traffic areas remaining unvegetated.

4. Ground Water Quality:

The use of a plastic-lined reserve pit would reduce or eliminate seepage of drilling fluid into the soil and eventually reaching groundwater. Spills or produced fluids (e.g., saltwater, oil, and/or condensate in the event of a breech, overflow, or spill from storage tanks) could result in contamination of the soils onsite, or offsite, and may potentially impact groundwater resources in the long term. The casing and cementing requirements imposed on the proposed well would reduce or eliminate the potential for groundwater contamination from subsurface sources.

5. Wildlife:

Some small wildlife species may be killed and their dens or nests destroyed during construction of the well. The construction of the access road and well pad could cause fragmentation of wildlife habitat. The short term negative impact to wildlife would occur during the construction phase of the operation due to noise and habitat destruction. In general, most wildlife species would become habituated to the new facilities. For other wildlife species with a low tolerance to activities, the site would continue to displace wildlife from the area due to ongoing disturbances such as vehicle traffic and equipment maintenance. The conditions of approval would alleviate most losses of wildlife species, such as fencing off reserve pits, netting storage tanks, installation or other modifications of cones on separator stacks, and timing stipulations. Upon abandonment of the well, the area would revegetate and wildlife would return to previous levels.

6. Range:

The construction of an access road and/or well location may unintentionally contribute to the establishment and spread of noxious weeds. Noxious weed seeds could be carried onto the project areas by construction equipment, the drilling rig, and transport vehicles. The main mechanism for seed dispersion on roads and well pads is by equipment and vehicles that were previously used and/or driven over noxious weed infested areas.

The potential for the dissemination of invasive and noxious weed seeds may be elevated by the use of construction equipment typically contracted out to companies that may be from other geographic areas in the region. Washing and decontaminating the equipment prior to transporting the equipment on site would minimize this impact.

7. VRM/Recreation:

The construction of the access road and well pad would slightly modify the existing visual features of the landscape due to other oil and gas facilities currently in place. Until reclamation of the access road and well pad are accomplished, oil and/or gas field operations may dominate the view of the landscape.

8. Cave/karst: There would be no impact to known cave entrances, or karst features within the project area.

9. Minority or Low-income Populations or Communities: The impact of the proposed action and alternatives to minority or low-income populations or communities has been considered and no significant impact is anticipated.

B. Alternatives:

1. Relocation Alternative:

The alternative of changing the location involved in this action was not analyzed further because no other alternative location would have significantly fewer impacts than, or have a clear advantage over, the proposed location.

2. No Action Alternative:

The No Action alternative would constitute denial of the application. None of the identified environmental impacts would occur. There would, however, be an adverse economic impact to the applicant through the denial of the lessee's right to develop the mineral reserves or through increased costs of accessing those mineral reserves through other means.

C. Mitigation:

The Roswell Field Office; Well Drilling Requirements (Exhibit B), Conditions of Approval (Exhibit C), Permanent Resource Road Requirements (Exhibit D) and the special requirements derived from this EA, would be applied to this proposed action to minimize the surface disturbance and conserve the surrounding landscape.

D. Cumulative Impacts:

While it is likely that there will be no significant cumulative impact from the proposed action, continued oil and gas development, and other surface-disturbing activities in this area, may potentially have negative cumulative impacts on vegetation, soil, water, livestock, and wildlife.

V. Consultation and Coordination

An onsite inspection was conducted on the access road and well pad on 9/15/2000 & 1/5/2001. In attendance were Mr. Cy Cowan, Regulatory Agent for Yates Petroleum Corporation, and Richard Hill, Environmental Protection Specialist, BLM Roswell Field Office. Coordination and consultation has occurred with the applicant's agent. The comments and suggestions expressed during the onsite consultation have been incorporated into this EA.

Coordination and consultation has occurred with Roswell Field Office staff specialist. The comments and suggestions expressed during the review of the proposed action and environmental assessment have been incorporated into this EA.

Reviewed by:

Irene Gonzales Salas 4-24-01

Irene M. Salas, Realty Specialist **Date**

DECISION RECORD AND
FINDING OF NO SIGNIFICANT IMPACT
EA-NM-060-01-083

RECOMMENDATION: I recommend that Yates Petroleum Corporation's Application For Permit To Drill Or Deepen (APD), the Dorothy "VO" Federal #2 gas well be approved. I recommend that provisions for the approval of the APD include the attachment of the Roswell Field Office requirements as defined in the following exhibits; **Exhibit A** - Location Map, **Exhibit B** - Well Drilling Requirements, **Exhibit C** - Conditions of Approval, **Exhibit D** - Permanent Resource Road Requirements, and special mitigating measures developed in the environmental assessment.

In the event the well proves to be a dry hole, or when the well is abandoned, I recommend that reclamation requirements be attached to the well abandonment, including additional requirements imperative for the complete reclamation of the disturbed areas. These actions are subject to 43 CFR 3160 regulations for Onshore Oil and Gas operations on federal lease NM-17208.

Authority for these actions is the Mineral Leasing Act of February 25, 1920, as amended.

These actions will affect public lands described as:

New Mexico Principal Meridian

Section 14; SW¼NW¼, T. 8 S., R. 26 E.
1,500' FNL & 1,300' FWL

RATIONALE FOR RECOMMENDATION: The proposed actions would not result in any undue or unnecessary environmental degradation. Portions of the subject lands and adjacent lands have been used for similar purposes and all present and potential uses and users have been considered.

FINDING OF NO SIGNIFICANT IMPACT: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts resulting from the proposed actions are not expected to be significant and an environmental impact statement is not required.

COMPLIANCE AND MONITORING: The construction phase of the proposed actions and subsequent operational phases will be monitored as per regulations.

DECISION: The recommendation and rationale are adopted as my decision.

Larry D. Bray, Assistant Field Manager,
Lands and Minerals

4/26/01
Date